

REMEDIATION AND REDEVELOPMENT (RR) NEWS FROM WISCONSIN DNR

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Hazardous Waste “Contained-out” Decisions and Soil Cleanups

Over the last five years DNR has been working with EPA on the applicability of federal hazardous waste rules to the cleanup of contaminated soil and groundwater. Several years ago DNR's RR and Waste Programs issued *Guidance for Hazardous Waste Remediation*, on the web at http://dnr.wi.gov/org/aw/rr/cleanup/hazardous_waste.htm. This guidance provides information on requirements that apply and options that are available when dealing with cleanup and redevelopment at sites that are or may be contaminated with hazardous waste.

One of the most useful tools in the guidance is the concept of “contained-out”. EPA generally interprets its rules such that environmental media that contain a regulated hazardous waste must be handled as a hazardous waste, because the waste is “contained in” soil or groundwater. However, the “contained-out” concept that DNR and EPA have agreed upon allows media contaminated with a listed hazardous waste or a commercial chemical product to be managed as a solid waste if the concentrations are below health based levels.

When DNR provided training on *Guidance for Hazardous Waste Remediation*, the informational materials included specific contained-out values for TCE, PCE and Vinyl Chloride. However, since that time EPA has revised its toxicity values for both TCE and PCE, and as a result those using EPA's web calculator to derive a contained-out value for these compounds will obtain results significantly lower than the numbers DNR provided. Over the last several months, we've had a number of questions about the appropriate "contained-out" values for these compounds.

EPA uses a 3-tiered hierarchy for determining human health toxicity. The most rigorous process (i.e. Tier 1) is to use IRIS (Integrated Risk Information System) to evaluate human health effects from exposure to various compounds. The second tier is referred to as PPRTV's (Provisional Peer Reviewed Toxicity Values), which was the method used by EPA to modify the toxicity values for TCE and PCE. However, DNR has flexibility in determining how to make "contained-out" determinations, and therefore until further notice, the numbers provided in our training materials may still be used when making "contained-out" determinations for contaminated soil in Wisconsin. Those concentration levels are as follows:

PCE: 33 ppm

TCE: 14 ppm

Vinyl Chloride: 0.87 ppm

Continuing to use these values will yield a consistent statewide approach and reduce the time spent preparing and evaluating "contained-out" determinations for these contaminants. In addition, it will provide DNR with time to further evaluate EPA's 3-tier process for establishing toxicity values and to determine how, if at all, the process affects our hazardous waste regulatory decisions. If we need to modify our Wisconsin "contained-out" values in the future, we provide a follow-up announcement in the *RR News from DNR*.

The “contained-out” option addresses contamination from releases of listed hazardous wastes or commercial chemical products. However, contaminated media can also be considered a hazardous waste if it exhibits the characteristic of ignitability,

reactivity, corrosivity, or toxicity. The characteristic most likely to apply to contaminated soil is toxicity, which is determined by the Toxicity Characteristic Leaching Procedure (TCLP). See s. NR 605.08, Wis. Admin. Code, for additional details.

If you have questions regarding this information please direct them to Mark Gordon, DNR, at (608) 266-7278 or at Mark.Gordon@dnr.state.wi.us.